Algebra 2
8.5 Worksheet #2

Name _____
Date _____ Pd. ____

Simplify the following. Note all restrictions.

1. $\frac{2}{(b+3)}+\frac{3}{(b+5)}$

LCD: $(b+3)(b+5)$

$\frac{2(b+5)}{(b+3)(b+5)}+\frac{3(b+3)}{(b+5)(b+3)}$

$2b+10+3b+9=\frac{5b+19}{(b+5)(b+3)}$

2. $\frac{x-2}{(x+3)(x-1)}-\frac{x+2}{(x-1)(x+3)}$

LCD: $(x+3)(x-1)$

$\frac{(x-2)(x-1)}{(x+3)(x-1)}-\frac{(x+2)(x+3)}{(x-1)(x+3)}$

$x^2-3x+2-1(x^2+5x+6)$

$x^2-3x+2-x^2-5x-6$

$\frac{-8x-4}{(x+3)(x-1)}$

3. $\frac{3x}{x^2+7x+12}+\frac{x}{x^2+6x+8}$

$(x+3)(x+4)\quad(x+4)(x+2)$

LCD: $(x+4)(x+3)(x+2)$

4. $\frac{2x}{x^2+x-6}+\frac{3x}{x^2-4}$

$(x+3)(x-2)\quad(x+2)(x+2)$

LCD: $(x-2)(x+3)(x+2)$

5. $\frac{x-1}{2x^2-5x-3}+\frac{x}{x^2-4x+3}-\frac{2}{2x^2-x-1}$

6. $\frac{2x}{3x^2-x-2}+\frac{x+1}{6x^2-11x-10}-\frac{3}{3x+2}$

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7. $\frac{x+1}{x^2-4x+3}-\frac{x-3}{x^2+4x-5}-\frac{x+5}{x-3}$

8. $\frac{4x}{x^2-4}+\frac{x+1}{x^2-x-6}-\frac{5}{x^2-5x+6}$

9. $\frac{2}{2x-1}+\frac{3}{2x^2+5x-3}$

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